

In The Claims:

1. A battery separator comprising:  
a microporous polyolefinic membrane having a porosity  
in a range of 30 - 80%, an average pore size in a range of 0.02 -  
2.0 microns, and being made from a blend of a polyolefin polymer,  
and an oligomer of a polyolefinic polymer.
2. A battery separator comprising  
a microporous polyolefinic membrane having a porosity  
in a range of 30 - 80%, an average pore size in a range of 0.02 -  
2.0 microns, and being made from a blend of a C<sub>1</sub> - C<sub>7</sub> based  
polymer and a C<sub>1</sub> - C<sub>7</sub> based oligomer.
3. The separator according to Claims 1 or 2 wherein said  
separator having a shutdown temperature less than the melting  
temperature of said polymer.
4. The separator according to Claims 1 or 2 wherein said  
separator having a thickness less than 3 mils.
5. The separator according to Claims 1 or 2 wherein said  
membrane being one layer of a multilayered separator.
6. The separator according to Claims 1 or 2 wherein said  
blend having 50% or less by weight of oligomer.

The separator according to Claims 1 or 2 wherein said  
being a polyethylene.

By 8. The separator according to Claims 1 or 2 wherein said oligomer being a polyethylene wax having a molecular weight less than 6000.

9. A battery separator for a lithium rechargeable battery comprising a microporous polyolefinic membrane having a shutdown temperature of less than about 130°C, a porosity in a range of 30 - 80%, an average pore size in a range of 0.02 - 2.0 microns, and being made from a blend of a high density polyethylene polymer and a polyethylene wax having a molecular weight less than 6000.

10. A battery comprising:  
an anode;  
a cathode;  
a separator according to Claims 1 or 2, said separator  
being disposed between said anode and said cathode; and  
an electrolyte in ionic communication with said anode  
and said cathode via said separator.

11. The battery according to Claim 10 being a lithium battery.